CLAIMS:

1. A library of at least 10^5 different peptides each with an amino acid sequence according to the following formula ("Formula I"):

Q	T	H	V	T	G	G	S	A	A	R	T	T	S	G	L	T	S	L	F	S	P	G	A	S	Q	N
T		T	T	V			V	Q	G	H	A	A	H	S		V	G			R	L		P	K		K
		R					Q	V	S		Q	V	R	R			R				S		S	Q		
																					Q					

2. A library according to claim 1 including at least 10^6 different peptides each with an amino acid sequence according to said formula.

3. A library according to ~~claim 2~~ including at least 10^7 different peptides each with an amino acid sequence according to said formula.

4. A library according to claim 1 wherein the peptides each have an amino acid sequence of the following formula ("Formula III"):

97

Q	T	H	T	V	G	G	Q	A	S	H	Q	A	S	S	L	T	S	L	F	S	P	G	A	K	Q	N
T			T	V	T		S	Q	G		A	T	H	G		V	G							S	S		K
							V	V	A		T	V	R	R										P	Q		

5. A library according to claim 4 with at least 10^6 different peptides with an amino acid sequence according to Formula III.

6. A library according to any of claims 1 to 5 displayed on the surface of bacteriophage particles.

7. A method of obtaining one or more peptides containing an epitope immunologically cross-reactive with an epitope in the HVR1 of an HCV strain, the method including bringing into contact a library of peptides according to any of claims 1 to 5 and an antibody molecule able to bind said HVR1 of an HCV strain, and selecting one or more peptides of the library able to bind said antibody molecule.

8. A method according to claim 7 wherein the peptide or peptides selected contain an epitope immunologically cross-reactive with the HVR1 of a plurality of strains of HCV.

9. A method according to claim 8 including bringing into contact a library of peptides according to any of claims 1 to

and a plurality of antibody molecules collectively able to bind the HVR1 of a plurality of strains of HCV.

10. A method according to claim 9 wherein said plurality of antibody molecules is derived from sera of individuals infected with HCV.

11. A method according to any of claims 7 to 10 wherein said library is displayed on the surface of bacteriophage particles, each particle containing nucleic acid encoding the peptide displayed on its surface.

12. A method according to claim 11 wherein nucleic acid is taken from a bacteriophage particle displaying a said selected peptide.

13. A method according to claim 12 including producing a peptide by expression from nucleic acid with the sequence of nucleic acid taken from a bacteriophage particle displaying a said selected peptide.

14. A method according to any of claims 7 to 13 wherein a peptide with the amino acid sequence of a said selected peptide is provided in isolated form.

15. A method according to any of claims 7 to 13 wherein a plurality of peptides each with the amino acid sequence of a said selected peptide is provided in isolated form.

16. A method according to any of claims 7 to 13 wherein a mixture of said plurality of peptides is provided in isolated form.

17. A method according to any of claims 14 to 16 wherein said peptide with the amino acid sequence of a said selected peptide, said plurality of peptides or said mixture of plurality of peptides in isolated form is provided by expression from encoding nucleic acid.

18. A method according to any of claims 14 to 16 wherein said peptide with the amino acid sequence of a said selected peptide, said plurality of peptides or said mixture of plurality of peptides in isolated form is provided by peptide synthesis.

19. A method according to any of claims 14 to 18 wherein said peptide with the amino acid sequence of a said selected peptide, said plurality of peptides or said mixture of plurality of peptides in isolated form is formulated into a composition including at least one additional component.

20. A method according to claim 19 wherein said composition includes a pharmaceutically acceptable excipient.

21. A method according to claim 19 wherein said composition includes an adjuvant.

22. A method according to any of claims 7 to 17 wherein the amino acid sequence of a said selected peptide is provided in a fusion with additional amino acids.

23. A method according to claim 22 wherein said fusion includes HCV E2/NS1 protein with said amino acid sequence in the HVR1 position.

24. A method according to claim 22 or claim 23 wherein said fusion is formulated into a composition including at least one additional component.

25. A method according to claim 24 wherein said composition includes a pharmaceutically acceptable excipient.

26. A method according to claim 24 wherein said composition includes an adjuvant.

27. A method according to claim 23 wherein said fusion is

included in a recombinant HCV.

28. A method according claim 27 wherein said recombinant HCV is formulated into a composition including at least one additional component.

29. A method according to claim 28 wherein said composition includes a pharmaceutically acceptable excipient.

30. A method according to claim 28 wherein said composition includes an adjuvant.

31. A method according to any of claims 7 to 30 wherein said selected peptide has or selected peptides each have an amino acid sequence according to the following formula ("Formula II"):

Q	T	H	T	V	G	G	Q	A	S	H	Q	A	S	S	L	T	S	L	F	S	P	G	A	K	Q	N
		T								R							G			L	S					
																	R			Q	P					

32. A mixture of 108 different peptides obtainable from a library according to any of claims 1 to 6, wherein each of the 108 different peptides has an amino acid sequence according to the following formula ("Formula II"):

Q	T	H	T	V	G	G	Q	A	S	H	Q	A	S	S	L	T	S	L	F	S	P	G	A	K	Q	N
	T								R							G			L		S						
																R			Q		P					

33. A composition including a plurality of peptides of Formula II obtainable from a mixture according to claim 32.

34. A composition according to claim 33 including 2 to about 10 different peptides obtainable from said mixture.

35. A composition according to claim 33 or claim 34 including any one or more of the peptides G31, F78, R9, D6, M122 and H1 of which the amino acid sequences are shown in Figure 7(A).

36. A composition according to claim 35 including said peptides R9, F78, H1 and D6 ("MIX1").

37. A composition according to claim 35 including said peptides M122 and G31 ("MIX2").

38. A composition according to claim 35 including said peptides G31, F78, R9, D6, M122 and H1 ("MIX3").

39. A composition according to any of claims 33 to 38 wherein one or more of said peptides is in a fusion with additional

amino acids.

40. A composition according to claim 39 wherein said fusion includes HCV E2/NS1 protein with the peptide in the HVR1 position.

41. A composition according to claim 40 wherein said fusion is included in a recombinant HCV.

42. A composition according to any of claims 33 to 41 including at least one additional component.

43. A composition according to claim 42 wherein said composition includes a pharmaceutically acceptable excipient.

44. A composition according to claim 42 wherein said composition includes an adjuvant.

45. A peptide of Formula II obtainable from a mixture according to claim 32.

46. A peptide obtainable from a library according to any one of claims 1 to 5.

47. A peptide according to claim 46 with an amino acid

sequence selected from the group consisting of:

2.11	QTHTVGGVQGRQAHSLTSLFSPGASQN
D6	QTTTTGGQVSHATHGLTGLFSLGPQQK
D18	QTHTTGGSASHQASGLTRLFSQGPSQN
F63	QTHVVGGQQGRQVSSLVSLFSPGASQK
G31	TTHTVGGSVARQVHSLTGLFSPGPQQK
L13	QTHTVGGSQAHAAHSLTRLFSPGSSQN
M69	QTTVVGGSQARAAHGLVSLFSLGSKQN
Z61	QTHVVGGVQGRQTSGLVGLFSPGSKQN
R9	QTTVVGGSQSHTVRGLTSLFSPGASQN
B26	TTTTTGGQAGHQAHSLTSLFSPGASQK
B22	QTHVVGGVQSHQTSGLTSLFSPGASQK
B35	QTHTTGGVQGHQTSRLTSLFSPGPSQN
D29	TTTVVGGQAAHQTHSLTSLFSPGAKQN
D33	TTTTTGGQQSHTVHGLVGLFSPGSKQN
E26	QTHTVGGVQAHTVRGLTSLFSPGSSQN
F80	QTHTTGGQAGHTASSLTGLFSPGAKQN
F19	QTTTVGGVASHQAHSLTGLFSPGAKQK
F78	QTHTTGGQAGHQAHSLTGLFSPGAKQN
H1	QTHTTGGVVGHATSGLTSLFSPGPSQK
L76	TTTTVGGQASHQTSSLTGLFSPGSKQN
B24	TTTTVGGQASHTTSSLTGLFSPGASQK
M63	QTHTTGGVVSHQTRSLVGLFSPGPQQN
M27	QTTTTGGVASHAAHRLTSLFSPGPQQK

M122	QTTTTGGSASHAVSSLTGLFSPGSKQN
M129	QTTVVGGSAGHTASSLVGLFSPGSKQN
M119	TTTTVGGQASHTTSSLTGLFSPGSQQN
R5	QTHTTGGQASHQVSSLVSLFSPGAKQK
R6	TTTTTGGQVGHQTSGLTGLFSPGAQQN
R27	TTHVVGGSASHAVRGLTSLFSPGSSQN

48. A peptide of any of the following amino acid sequences:

B14	QTTVTGQASHTTSSLTGLFSPGASQK
B33	ATHATGGQAAHSTHSLTSLFSPGASQK
F81	QTHVTGGSAAHQTGGLTGLFSPGPKQN
B18	QTTVVGGQASHVSRLTGLFSPGSSQK
E19	TTHTGGQQAHTTSRLVSLFSPGASQK
L72	QTTTAAHTTSGLTGLFSPGAKQN
D20	QTHVTGVAGRQTSGLVSLFSPGSSQN
D30	QGGVQGHTTSSLVGLFSPGSQQN

49. A composition including a peptide according to any of claims 46 to 48.

50. A composition including a plurality of peptides according to any of claims 46 to 48.

51. A composition according to claim 50 including 2 to about

10 different peptides according to any of claims 46 to 48.

52. A composition according to any of claims 49 to 51 wherein one or more of said peptides is in a fusion with additional amino acids.

53. A composition according to claim 52 wherein said fusion includes HCV E2/NS1 protein with the peptide in the HVR1 position.

54. A composition according to claim 53 wherein said fusion is included in a recombinant HCV.

55. A composition according to any of claims 49 to 54 including at least one additional component.

56. A composition according to claim 55 wherein said composition includes a pharmaceutically acceptable excipient.

57. A composition according to claim 55 wherein said composition includes an adjuvant.

58. Nucleic acid encoding a peptide according to any of claims 45 to 48.

59. Nucleic acid encoding a plurality of peptides according to any of claims 45 to 48.

60. Nucleic acid according to claim 58 or claim 59 operably linked to regulatory sequences for expression of the encoded peptide or peptides.

61. A host cell containing nucleic acid according to claim 60.

62. A method for production of a peptide or peptides according to any of claims 45 to 48, the method including causing expression from nucleic acid according to claim 60.

63. A method for production of a peptide or peptides according to any of claims 45 to 48, the method including culturing host cells according to claim 61 under conditions for production of said peptide or peptides.

64. A method according to claim 62 or claim 63 including isolation and/or purification of said peptide or peptides.

65. A method according to any of claims 62 to 64 including formulating said peptide or peptides into a composition including at least one additional component.

66. A method according to claim 65 wherein said composition includes a pharmaceutically acceptable excipient.

67. A method according to claim 65 wherein said composition includes an adjuvant.

68. A method of obtaining one or more antibody molecules containing a binding site able to bind an epitope in the HVR1 of a plurality of HCV strains, the method including bringing into contact a population of antibody molecules and a peptide according to any of claims 45 to 48, and selecting one or more antibody molecules of the population able to bind said peptide.

69. A method according to claim 68 including bringing the population of antibodies into contact with a plurality of peptides according to any of claims 45 to 48.

70. A method according to claim 68 or claim 69 wherein the peptides are provided in a fusion with additional amino acids.

71. A method according to any of claims 68 to 70 wherein said peptide or plurality of peptides is administered to a non-human mammal to bring it or them into contact with a

population of antibody molecules produced by the mammal's immune system, then one or more antibody molecules able to bind said peptide or peptides is taken from the mammal.

72. A method according to any of claims 68 to 70 wherein the peptide or peptides are administered to a non-human mammal to bring them into contact with a population of antibody molecules produced by the mammal's immune system, then cells producing antibody molecules able to bind the peptide or peptides are taken from the mammal.

73. A method according to claim 72 wherein antibody molecules are taken from said cells or descendants thereof.

74. A method according to any of claims 71 to 73 wherein the mammal is sacrificed.

75. A method according to any of claims 68 to 70 wherein the population of antibody molecules is displayed on the surface of bacteriophage particles, each particle containing nucleic acid encoding the antibody molecule displayed on its surface.

76. A method according to claim 75 wherein nucleic acid is taken from a bacteriophage particle displaying an antibody molecule able to bind said peptide or peptides.

77. A method according to claim 76 including producing an antibody molecule by expression from nucleic acid with the sequence of nucleic acid taken from a bacteriophage particle displaying an antibody molecule able to bind said peptide or peptides.

78. A method according to any of claims 68 to 77 wherein an antibody molecule able to bind said peptide or peptides is provided in isolated form.

79. A method according to claim 78 wherein a plurality of antibody molecules able to bind said peptide or peptides are provided in isolated form.

80. A method according to claim 79 wherein a mixture of said plurality of antibody molecules is provided in isolated form.

81. A method according to any of claims 78 to 80 wherein said antibody molecule, plurality of antibody molecules or mixture of plurality of antibody molecules in isolated form is provided by expression from encoding nucleic acid.

82. A method according to any of claims 78 to 81 wherein said antibody molecule, plurality of antibody molecules or mixture of plurality of antibody molecules in isolated form is

formulated into a composition including at least one additional component.

83. A method according to claim 82 wherein said composition includes a pharmaceutically acceptable excipient.

84. An antibody molecule obtained by a method according to any of claims 68 to 83.

85. Use of a composition according to any of claims 33 to 44 in the manufacture of a medicament for raising in a mammal antibodies able to bind HCV HVR1 epitopes.

86. Use of a peptide according to any of claims 45 to 48 in the manufacture of a medicament for raising in a mammal antibodies able to bind HCV HVR1 epitopes.

87. Use of a composition according to any of claims 49 to 57 in the manufacture of a medicament for raising in a mammal antibodies able to bind HCV HVR1 epitopes.

88. Use of nucleic acid according to any of claims 58 to 60 in the manufacture of a medicament for raising in a mammal antibodies able to bind HCV HVR1 epitopes.

89. Use of an antibody molecule according to claim 84 in the manufacture of a medicament for increasing in a mammal the level of antibodies able to bind HCV HVR1 epitopes.

90. A method of raising in a mammal antibodies able to bind HCV HVR1 epitopes, the method including administering a composition according to any of claims 33 to 44 to the mammal.

91. A method of raising in a mammal antibodies able to bind HCV HVR1 epitopes, the method including administering a peptide according to any of claims 45 to 48 to the mammal.

92. A method of raising in a mammal antibodies able to bind HCV HVR1 epitopes, the method including administering a composition according to any of claims 49 to 57 to the mammal.

93. A method of raising in a mammal antibodies able to bind HCV HVR1 epitopes, the method including administering nucleic acid according to any of claims 58 to 60 to the mammal.

94. A method of increasing in a mammal the level of antibodies able to bind HCV HVR1 epitopes, the method including administering an antibody according claim 84 to the mammal.

95. A method according to any of claims 90 to 94 which is prophylactic.

96. A method according to any of claims 90 to 94 wherein the mammal has an HCV infection.